

REMARKS

Claims 1–12 are pending in the application. In the Final Office action dated March 17, 2009, claims 1–12 were rejected. Responsive to the Final Office action, Applicant has amended claims 1, 2 and 5, and canceled claim 11. In view of the amendments above, and the remarks below, Applicant respectfully requests reconsideration of the application and allowance of the pending claims.

Request for Continued Examination

In order to ensure that the above amendments are entered, and the following remarks are considered, Applicant also submits a Request for Continued Examination under 37 C.F.R. § 1.114.

Rejections under 35 USC § 112

Claim 4 is rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In particular, the Examiner asserts that the element "the aft part" in claim 4 does not have sufficient antecedent basis. Applicant appreciates the Examiner's careful review of the claims, and takes this opportunity to amend claim 4 so as to provide sufficient antecedent basis for every element of the claim.

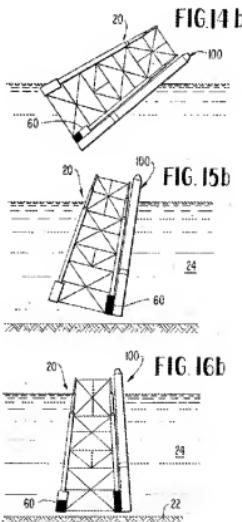
Rejections under 35 USC § 102

Claims 5–8, and 10 are rejected under 35 USC § 102(b) as being anticipated by Crout et al. (U.S. Patent no. 3,823,564).

The Examiner asserts that the Crout et al. reference discloses each and every element of the rejected claims. Applicant respectfully disagrees. However, in the interest of facilitating the prosecution of the application, claim 5 has been amended to more particularly define the claimed invention. The vessel of claim 5, as amended, includes a ballastable main buoyancy section, and two elongate auxiliary buoyancy sections which protrude upwards in the same

direction on either side of the main section. Furthermore, the vessel of claim 5 is configured so that the entire vessel can be rotated such that the main section of the vessel assumes an approximately vertical condition. The vessel may then be secured to the jacket structure that is to be removed, so that the auxiliary buoyancy sections protrude on opposite sides of the jacket structure. The vessel is configured to then be deballasted, so as to rotate the vessel and the attached jacket structure back to a generally horizontal position, while bringing the vessel with the jacket structure to the water surface.

In considering the float of the Crout et al. reference, Applicant notes that the float 100 is disclosed as useful for installing jackets, but not removing them. The Objects and Summary of the Invention section of Crout et al. (col. 2, line 39 to col. 3, line 62) refers many times to a method and apparatus for "transporting and launching" an offshore tower. There is no suggestion or disclosure of a float or vessel capable of removing or recovering such an offshore structure.



In addition, the float of Crout et al. relies heavily on buoyancy tanks 60, which are part of the tower construction itself, to transport and install an offshore tower (see col. 11, line 7 to col. 12, line 20; and Figs. 14b–16b, above). Further emphasizing the "one-way" nature of this tower transport, the Crout et al. float utilizes connecting assemblies to secure tower 20 onto the float 100 for travel to the launch location, and then relies upon the activation of shaped charges to quickly sever the connections to the float (see col. 10, lines 30–44; and col. 12, lines 32–37). Crout et al. disclose no provisions whatsoever for reattaching a tower to the float for removal of the tower, precisely because the float of Crout et al. is incapable of recovering a tower in this manner.

In addition, Applicant notes that the float of Crout et al. must necessarily be built exactly to the size and taper of the tower to be transported, limiting its general utility. See for example in Fig 3 of Crout how the tanks 60 are precisely supported between the parallel tubular members 140–144 and 142–146 of the so-called tuning forks 102 and 104, while the legs 30 are supported via columns 200 on the tubular sections 106 and 108 (see Figs 2 and 5 of Crout et al.) of the tuning forks. Thus, towers that are larger or smaller than the intended tower, or simply have a different shape, could not be transported and launched by the float of Crout et al.

In order for a specialized vessel for transporting, installing and removing offshore jackets to be economically viable, it must be capable of handling jackets of differing sizes and shapes, as there are a substantial number of different jackets approaching the end of their useful life, and therefore requiring subsequent removal. The claimed vessel is very well suited for this situation because the flat deck surface of the main section can accommodate any jacket that fits between the upstanding auxiliary buoyancy sections. Supports for the jacket to be transported can be located on the deck quite easily wherever necessary.

Furthermore, the presently claimed vessel is self-contained, in the sense that it does not need help from cranes or external buoyancy tanks to pivot and lift the jacket to be removed. The pivoting motion, as recited in the last paragraph of claim 5, advantageously places the

center of buoyancy in line with the center of gravity of the combined jacket/vessel structure. This is only possible when using a vessel having the recited protruding auxiliary sections, and cannot be achieved using the Crout et al. float.

In order to anticipate a claim under 35 U.S.C. § 102, the cited reference must disclose each and every element of that claim, as it is arranged in the claim. Applicant respectfully suggests that Crout et al. fail to disclose a vessel capable of removing and transporting an offshore jacket structure; fails to disclose a vessel having elongate auxiliary buoyancy sections that protrude upwards, in the same direction, on either side of the main section, fails to disclose a vessel that can be secured to the jacket structure so that the auxiliary buoyancy sections are located on opposite sides of the jacket structure, and fails to disclose a vessel capable of deballasting to rotate the vessel with the secured jacket structure back to a horizontal position.

As the Crout et al. reference fails to disclose each and every element of claim 5, Applicant suggests that claim 5 is not anticipated by Crout et al. Furthermore, as claims 6, 7, 8, and 10 depend from claim 5, Applicant suggests these claims are similarly not anticipated. In view of the above amendments and remarks, Applicant respectfully requests the withdrawal of the rejection of claims 5, 6, 7, 8, and 10 under 35 U.S.C. § 102.

Rejections under 35 USC § 103

Claims 1–4, 9, 11, and 12 are rejected under 35 USC § 103(a) as being unpatentable over Crout et al. (U.S. Patent no. 3,823,564).

In particular, the Examiner suggests that it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the vessel disclosed by Crout et al. such that the pump room would be positioned in the transverse buoyancy section and the control room in the fore part since the modification would have merely required the relocation of the pump and control rooms.

Furthermore, the Examiner asserts that the reverse of the method of installation disclosed by Crout et al. is an obvious variant of the method of installation; and therefore it

would have been obvious to one having ordinary skill in the art desiring to use the vessel to remove an offshore jacket structure at the time of invention.

Applicant respectfully disagrees, and suggests the Examiner is using an improper standard for determining obviousness.

As set out at MPEP § 2143.01, merely because the prior art can be modified, is not by itself sufficient to render the modification *prima facie* obvious, unless the results would have been predictable to one of ordinary skill in the art. Crout et al. remains silent on the removal of offshore jackets, and must necessarily fail to provide any suggestion that modification of the design of the Crout et al. float would be advantageous for such offshore jacket removal.

Further, the mere statement that the claimed invention is within the capabilities of one of ordinary skill in the art is not sufficient by itself to establish *prima facie* obviousness, without some objective reason, having a rational underpinning, to modify the references.

However, Applicant notes that, for at least the reasons provided above with respect to the anticipation rejections, Crout et al. fails to disclose each and every element of the rejected claims, particularly in view of the amendments made to claims 1 and 5, and so Crout et al. fails to establish the *prima facie* obviousness of the rejected claims.

Crout et al. fail to disclose a vessel capable of removing and transporting an offshore jacket structure; fail to disclose a vessel having elongate auxiliary buoyancy sections that protrude upwards, in the same direction, on either side of the main section, fail to disclose a vessel that can be secured to the jacket structure so that the auxiliary buoyancy sections are located on opposite sides of the jacket structure, and fail to disclose a vessel capable of deballasting to rotate the vessel with the secured jacket structure back to a horizontal position.

With respect to the Examiner's suggestion that recovery of an offshore jacket is simply a reversal of the installation, Applicant again notes that Crout et al. specify the use of shaped charges to disengage the float from the tower as soon as possible after the tower has been "pinned" to the sea floor, due to the danger and instability resulting from float producing

"approximately two-thirds of the wave shear force on the tower", making it "almost impossible to install enough pilings in a short period of time to hold the tower as well as the launch apparatus in place in the event rough sea conditions should arise" (see col. 10, lines 14–29).

Applicant suggests that the Crout et al. reference itself provides a strong suggestion that simply carrying out the reverse of the installation process would be dangerous, and therefore teaches away from carrying out the reverse of the installation process. Furthermore, Applicants suggest that these comments serve to show that Crout et al. necessarily fails to provide a reasonable expectation of success of the claimed vessel and method.

The presently claimed vessel and method provide several significant advantages when compared to existing methods of offshore jacket removal.

- Jacket removal time is significantly shorter due to simplified field operations and less weather-induced down-time.
- The claimed vessel is capable of rapidly offloading a salvaged jacket for rapid turnaround, permitting an increased number of operations in a season.
- The claimed vessel provides is an environment friendly method of jacket removal that minimizes dangerous offshore work and facilitates jacket removal in one piece.
- Furthermore, the claimed vessel operates with significant financial savings in both capital outlay and operating costs in comparison to previously utilized methods, principally through simplicity of operation, low maintenance, a reduced need for extensive underwater dive operations, and lower levels of manpower required throughout the removal and transportation phases.

Applicant believes that in view of the above amendments and remarks, this application is now in condition for allowance. Accordingly, Applicant respectfully requests that the Examiner issue a Notice of Allowability covering the pending claims. If the Examiner has any questions, or

if a telephone interview would in any way advance prosecution of the application, please contact the undersigned agent of record.

CERTIFICATE OF E-FILING

I hereby certify that this correspondence is being transmitted electronically via the United States Patent and Trademark Office EFS-Web System on July 17, 2008.

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Respectfully submitted,

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